

Exhibit 1



Transcript of William A.V. Clark, Ph.D.

Date: December 22, 2016

Case: de Reyes, et al. -v- Waples Mobile Home Park Limited Partnership, et al.

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Transcript of William A.V. Clark, Ph.D.

1 (1 to 4)

Conducted on December 22, 2016

1	IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA Alexandria Division -----x ROSY GIRON DE REYES, : et al., : Plaintiffs, : Civil No.: v. : 1:16cv563-TSE-TCB WAPLES MOBILE HOME PARK LIMITED : PARTNERSHIP, : et al., : Defendants. : -----x Videoconference Deposition of WILLIAM A.V. CLARK, Ph.D. McLean, Virginia Thursday, December 22, 2016 4:05 p.m. Job No: 130604 Pages: 1 - 87 Reported by: Kelly Carnegie, CSR, RPR	3	A P P E A R A N C E S ON BEHALF OF THE PLAINTIFFS: JONGWOOK KIM, ESQUIRE (Appearing by Videoconference) Quinn Emanuel Urquhart & Sullivan, LLP 777 Sixth Street, NW Eleventh Floor Washington, D.C. 20001 (202) 538-8000 ON BEHALF OF THE DEFENDANTS: MICHAEL S. DINGMAN, ESQUIRE JUSTIN D. deBETTENCOURT, ESQUIRE Reed Smith, LLP 7900 Tysons One Place Suite 500 McLean, Virginia 22102 (703) 641-4200 ALSO PRESENT: Karen Condon (Appearing by Videoconference)
2	Videoconference Deposition of WILLIAM A.V. CLARK, Ph.D., held at the offices of: Reed Smith, LLP 7900 Tysons One Place Suite 500 McLean, Virginia 22102 Pursuant to Notice, before Kelly Carnegie, Certified Shorthand Reporter, Registered Professional Reporter, and Notary Public in and for the Commonwealth of Virginia.	4	C O N T E N T S EXAMINATION OF WILLIAM A.V. CLARK, Ph.D. PAGE By Mr. Dingman 5 E X H I B I T S (Exhibits retained by counsel.) DEPOSITION EXHIBITS PAGE Exhibit 1 Expert Report of William A.V. Clark, Ph.D. 56 Exhibit 2 Expert Reply Report of William A.V. Clark, Ph.D. 72

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<p>5</p> <p>1 PROCEEDINGS</p> <p>2 MR. DINGMAN: Let's go on the record.</p> <p>3 I'll state this and then ask for your</p> <p>4 agreement, Wookie. It's the following: We</p> <p>5 understand that the court reporter is administering</p> <p>6 the oath even though she is not in the presence of</p> <p>7 the deponent. Nevertheless, we stipulate that the</p> <p>8 report can administer the oath and further agree</p> <p>9 that there will be no objection to the admissibility</p> <p>10 of the transcript based on the oath.</p> <p>11 Are we in agreement on that?</p> <p>12 MR. KIM: Yes, we're in agreement.</p> <p>13 MR. DINGMAN: Thank you.</p> <p>14 Whereupon,</p> <p>15 WILLIAM A.V. CLARK, Ph.D.</p> <p>16 being first duly sworn or affirmed to testify to the</p> <p>17 truth, the whole truth, and nothing but the truth,</p> <p>18 was examined and testified as follows:</p> <p>19 EXAMINATION BY COUNSEL FOR THE DEFENDANTS</p> <p>20 BY MR. DINGMAN:</p> <p>21 Q Please state your name, sir.</p> <p>22 A William Arthur Valentine Clark, C-l-a-r-k.</p>	<p>7</p> <p>1 simply give the most complete answer that you can to</p> <p>2 the questions that are put to you. Do you</p> <p>3 understand that you are testifying under oath?</p> <p>4 A Yes.</p> <p>5 Q Is there any reason you're not able to</p> <p>6 testify fully and truthfully today?</p> <p>7 A No.</p> <p>8 Q What have you done to prepare for your</p> <p>9 deposition?</p> <p>10 A I reread my report and response to Dr.</p> <p>11 Weinberg, and reread Dr. Weinberg's report, and this</p> <p>12 morning I met with Mr. Kim.</p> <p>13 Q Did you meet with anyone besides Mr. Kim</p> <p>14 this morning?</p> <p>15 A No.</p> <p>16 Q Have you previously testified as an expert</p> <p>17 witness in a lawsuit involving a claim of disparate</p> <p>18 impact?</p> <p>19 A Yes.</p> <p>20 Q Do you understand that phrase, "disparate</p> <p>21 impact?"</p> <p>22 A Yes.</p>
<p>6</p> <p>1 Q Mr. Clark, have you been deposed</p> <p>2 previously as an expert witness?</p> <p>3 A I have.</p> <p>4 Q On approximately how many occasions?</p> <p>5 A Somewhere in the range of 35 to 40 times.</p> <p>6 Q All right. So you're familiar with the</p> <p>7 deposition process, but let me just go over some of</p> <p>8 the instructions for the deposition.</p> <p>9 I'll be asking you questions about your</p> <p>10 opinions in this lawsuit. If I ask a question that</p> <p>11 you do not understand or does not make sense to you,</p> <p>12 please let me know and I'll rephrase it so that you</p> <p>13 can answer it. The understanding will be if you</p> <p>14 answer the question, then you've understood it,</p> <p>15 okay?</p> <p>16 A Yes.</p> <p>17 Q And as I'm sure you've been told before,</p> <p>18 all answers need to be verbal, especially since it's</p> <p>19 videoconference, as opposed to a head shake or an</p> <p>20 "uh-huh" so that the transcript is clear, all right?</p> <p>21 A Yes.</p> <p>22 Q The obligation for you under oath is to</p>	<p>8</p> <p>1 Q What is your understanding of that term?</p> <p>2 A It's when some policy or some decision</p> <p>3 affects some groups differently than others.</p> <p>4 Q And have you testified as an expert</p> <p>5 witness in any lawsuits involving that type of</p> <p>6 claim?</p> <p>7 A Yes.</p> <p>8 Q How many such lawsuits have you testified</p> <p>9 in?</p> <p>10 A Recently, I believe four. There may have</p> <p>11 been some others in the past.</p> <p>12 Q Can you identify the four cases that</p> <p>13 you've recently testified as an expert witness in a</p> <p>14 lawsuit involving disparate impact claims.</p> <p>15 A The most recent one was listed on my</p> <p>16 report and related to a housing case in San Jose,</p> <p>17 California. Previous to that, there were two cases</p> <p>18 with respect to disparate impact and housing in</p> <p>19 Koreatown in Los Angeles, and before that there was</p> <p>20 a disparate impact case in Milwaukee.</p> <p>21 Q With respect to the case that you referred</p> <p>22 to in -- that's identified in your expert report,</p>

<p>9</p> <p>1 there were three cases there, one involving the</p> <p>2 Little Rock School District, one involving Pitt</p> <p>3 County Schools, and then one called Jones versus</p> <p>4 Travelers. Which of those cases involved the</p> <p>5 disparate impact claim?</p> <p>6 A The disparate impact claim was in the</p> <p>7 Travelers case.</p> <p>8 Q And then you mentioned there was one</p> <p>9 involving Koreatown and one in Milwaukee. Is that</p> <p>10 correct?</p> <p>11 A There were two in Koreatown, one in</p> <p>12 Milwaukee.</p> <p>13 Q Okay. Is the Travelers case the most</p> <p>14 recent one?</p> <p>15 A Yes.</p> <p>16 Q Okay. Who retained you in the Travelers</p> <p>17 case?</p> <p>18 A A law firm in San Jose. I don't recall</p> <p>19 the name of the attorney at the moment.</p> <p>20 Q For which party in that case were you</p> <p>21 retained?</p> <p>22 A For the Travelers Insurance Group.</p>	<p>11</p> <p>1 protected class, if you will, that was affected by</p> <p>2 the decision?</p> <p>3 A The argument was that the Section 8</p> <p>4 tenants were a protected class --</p> <p>5 Q Regarding --</p> <p>6 A -- which many of them were -- because many</p> <p>7 of them were minorities.</p> <p>8 Q What were you asked to do in that case?</p> <p>9 A I was asked to analyze the distribution of</p> <p>10 Section 8 tenants and to evaluate their residential</p> <p>11 locations and whether or not they were concentrated</p> <p>12 within the city of San Jose.</p> <p>13 Q Did you prepare a report in that case?</p> <p>14 A I did.</p> <p>15 Q What were the conclusions of your report?</p> <p>16 A That's about 18 months ago and I don't --</p> <p>17 I haven't reviewed the report recently, so I don't</p> <p>18 have specifics that I can give you on the</p> <p>19 conclusions.</p> <p>20 Q Do you recall generally what the</p> <p>21 conclusions were?</p> <p>22 A I wouldn't want to state them without</p>
<p>10</p> <p>1 Q What were the claims at issue in that</p> <p>2 case?</p> <p>3 A The plaintiffs owned rental housing in San</p> <p>4 Jose and they rented apartments to Section 8</p> <p>5 tenants. Travelers insured that property under</p> <p>6 commercial insurance. They declined to renew the</p> <p>7 insurance policy when it expired. The suit was</p> <p>8 brought arguing that they made that decision in --</p> <p>9 by making that decision, they had a disparate impact</p> <p>10 on Section 8 tenants who were renting those</p> <p>11 apartments.</p> <p>12 Q What group in that case claimed to have</p> <p>13 been disparately impacted by that decision?</p> <p>14 A The group was the Section 8 tenants.</p> <p>15 Q Was there any specific race or ethnicity</p> <p>16 of the Section 8 tenants at issue in that case?</p> <p>17 A I don't recall whether race was an issue.</p> <p>18 It was about Section 8 tenants, many of whom of</p> <p>19 course were minorities, but I don't know that it was</p> <p>20 specifically about race. It was essentially about</p> <p>21 affecting Section 8 residents.</p> <p>22 Q Let me ask it this way: What was the</p>	<p>12</p> <p>1 reviewing the report again.</p> <p>2 Q Did the case proceed to trial?</p> <p>3 A No.</p> <p>4 Q You mentioned that you were also involved</p> <p>5 in two cases involving Koreatown where disparate</p> <p>6 impact was at issue. Can you tell me approximately</p> <p>7 what years those cases took place?</p> <p>8 A In 2010 to 2012, in that range, perhaps</p> <p>9 one a little earlier.</p> <p>10 Q Who retained you in -- were those cases</p> <p>11 related, or were they separate lawsuits?</p> <p>12 A I think they were separate lawsuits, but</p> <p>13 they related to the same management company.</p> <p>14 Q Who retained you in those lawsuits?</p> <p>15 A Manatt Phelps.</p> <p>16 Q Were you retained on behalf of the</p> <p>17 plaintiff or the defendants in that case or those</p> <p>18 cases?</p> <p>19 A I -- excuse me. I was retained on behalf</p> <p>20 of the defendant.</p> <p>21 Q Who were the defendants in those cases?</p> <p>22 A I think the correct -- Donald Sterling and</p>

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<p>13</p> <p>1 Sterling Associates.</p> <p>2 Q So you were retained on behalf of Mr.</p> <p>3 Sterling?</p> <p>4 A Mr. Sterling was the owner of the</p> <p>5 apartments. I was retained by the corporation of</p> <p>6 which he was at that time the majority owner.</p> <p>7 Q What were the disparate impact issues in</p> <p>8 the Koreatown cases?</p> <p>9 A The disparate impact issue related to</p> <p>10 whether or not the corporation was renting</p> <p>11 disproportionately to Korean tenants vis-a-vis</p> <p>12 Hispanic and black tenants.</p> <p>13 Q And what were you asked to do in that case</p> <p>14 on behalf of the defendants?</p> <p>15 A I was asked to do a statistical analysis</p> <p>16 of all of the rental buildings in Koreatown.</p> <p>17 Q For what purpose?</p> <p>18 A To determine whether or not there was a</p> <p>19 differential impact on Hispanic and black tenants</p> <p>20 vis-a-vis Korean tenants.</p> <p>21 Q How did you go about performing that</p> <p>22 analysis?</p>	<p>15</p> <p>1 and I think there's something else, but it doesn't</p> <p>2 come to my mind right now -- whereas the ACS is</p> <p>3 sample survey data and does not count the total</p> <p>4 population as does the 2010 decennial census.</p> <p>5 Q What is the difference in the survey set</p> <p>6 or numbers of individuals survived between the</p> <p>7 decennial census and the ACS data?</p> <p>8 A If I heard correctly, you're asking what</p> <p>9 is the difference in the sample data between the ACS</p> <p>10 and the decennial?</p> <p>11 Q Yes, sir.</p> <p>12 A The decennial census is not a sample. It</p> <p>13 is a count of the population. The ACS is a sample</p> <p>14 survey conducted on a rolling basis.</p> <p>15 Q What percentage of the population is</p> <p>16 surveyed as part of the ACS process?</p> <p>17 A It's a rolling sample of approximately</p> <p>18 three million households, so it's a much -- it's</p> <p>19 about three -- less than three percent.</p> <p>20 Q How did you use the ACS data with respect</p> <p>21 to your opinions in the Koreatown cases?</p> <p>22 A I used it to capture current information</p>
<p>14</p> <p>1 A I did census analysis of data in</p> <p>2 Koreatown, which in fact, despite its name, is</p> <p>3 largely Hispanic. And I also did specific analyses</p> <p>4 of the occupancy of 23 to 28 buildings -- I don't</p> <p>5 recall the exact number -- in Koreatown.</p> <p>6 Q What census data did you review or analyze</p> <p>7 as part of the work that you did in those cases?</p> <p>8 A I used both 2010 census data and 2005 to</p> <p>9 2012 ACS data.</p> <p>10 Q Your reference to ACS, that's to the</p> <p>11 American Community Survey?</p> <p>12 A That's correct.</p> <p>13 Q What was the other census data that you</p> <p>14 relied on?</p> <p>15 A The decennial census from 2010, which is</p> <p>16 the complete census on race and ethnicity.</p> <p>17 Q What is the difference between the</p> <p>18 decennial census and the ACS data?</p> <p>19 A The decennial census as of 2010 now uses</p> <p>20 the short form which collects specific data that can</p> <p>21 be used for redistricting and in effect captures</p> <p>22 only the most basic information -- age, sex, race,</p>	<p>16</p> <p>1 on what was happening in Koreatown after the 2010</p> <p>2 decennial census.</p> <p>3 Q What data did you rely upon from the ACS</p> <p>4 information as part of your analysis in that case?</p> <p>5 A The same data that I used with the</p> <p>6 decennial data, that is, data on age, race, and</p> <p>7 ethnicity.</p> <p>8 Q Did you accept the ACS data without any</p> <p>9 modification?</p> <p>10 A I'm not sure I know what you mean by</p> <p>11 accept the data. The data is the data. I used what</p> <p>12 the ACS published.</p> <p>13 Q So if the ACS data, for example, said 30</p> <p>14 percent of the occupants or inhabitants of</p> <p>15 Koreatown, the total Hispanic population was 30</p> <p>16 percent, you would have just accepted that without</p> <p>17 any modification by you. Is that right?</p> <p>18 A I accepted the ACS data as published with</p> <p>19 the usual comments on their estimates of range of</p> <p>20 error and the other information they provided about</p> <p>21 their estimates.</p> <p>22 Q So that I'm clear, in your -- in the</p>

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<p style="text-align: right;">17</p> <p>1 opinions you provided in the Koreatown case, did you</p> <p>2 rely on the data from the ACS, or did you rely upon</p> <p>3 that as a starting point for your analysis?</p> <p>4 A I used the ACS data in constructing</p> <p>5 estimates on the population in Koreatown and the</p> <p>6 changes over time.</p> <p>7 Q So did the ACS data tell you what the</p> <p>8 population breakout was for Koreatown?</p> <p>9 A With some work on the way in which the</p> <p>10 data is prepared at the tract level, I was able to</p> <p>11 make estimates for Koreatown, but of course there is</p> <p>12 no exact match to what Koreatown is and the census</p> <p>13 tracts because Koreatown is a verbal statement about</p> <p>14 a general area in the city.</p> <p>15 Q As part of your opinions in the Koreatown</p> <p>16 case, did you estimate the population breakdown by</p> <p>17 ethnicity in that location?</p> <p>18 A I believe I did.</p> <p>19 Q Were those breakdowns based solely on the</p> <p>20 ACS data, or some change to that data that you</p> <p>21 implemented?</p> <p>22 A You're asking me to recall work of several</p>	<p style="text-align: right;">19</p> <p>1 Q What were your conclusions in the</p> <p>2 Koreatown cases?</p> <p>3 A Again, I respond by saying I'm recalling</p> <p>4 material from a period of time several years ago</p> <p>5 now. The general conclusion was that when you</p> <p>6 factored in the cost of housing and the</p> <p>7 affordability of housing, there was not a disparate</p> <p>8 impact on Hispanic or African-American tenants.</p> <p>9 Q Did that -- did those cases proceed to a</p> <p>10 trial?</p> <p>11 A One of the cases, which began as a</p> <p>12 disparate impact case, transformed into a</p> <p>13 discrimination case and went to trial. The other</p> <p>14 case was settled.</p> <p>15 Q Okay. You also mentioned that you were</p> <p>16 involved in a disparate impact case in Milwaukee.</p> <p>17 What was the year of that case?</p> <p>18 A I don't recall.</p> <p>19 Q And you mentioned just a minute ago that</p> <p>20 one of the Koreatown cases became a discrimination</p> <p>21 case. Have you testified as an expert witness in</p> <p>22 any discrimination or disparate treatment case?</p>
<p style="text-align: right;">18</p> <p>1 years ago, and I can't give you more specifics than</p> <p>2 I already have. I worked with that data as only a</p> <p>3 small fraction of the work on the disparate impact</p> <p>4 analysis. It was essentially contextual to provide</p> <p>5 data on what the population composition of Koreatown</p> <p>6 was at the time.</p> <p>7 Q Other than the ACS data and the decennial</p> <p>8 information, what other information did you consider</p> <p>9 in your analysis in the Koreatown cases?</p> <p>10 A Well, the most important data of course</p> <p>11 was the data on the occupancy of the buildings and</p> <p>12 the tenants themselves, and I had specific data on</p> <p>13 every resident in all the buildings in Koreatown,</p> <p>14 including the rents paid, the period of occupancy,</p> <p>15 and a range of information about the buildings</p> <p>16 themselves.</p> <p>17 Q How did that information assist you in</p> <p>18 performing your analysis in that case?</p> <p>19 A If I recall correctly, much of the case</p> <p>20 related to the levels of rents and the affordability</p> <p>21 of people in the buildings versus the pool that</p> <p>22 could afford to rent those buildings.</p>	<p style="text-align: right;">20</p> <p>1 A I have certainly given depositions and</p> <p>2 I've certainly testified about discriminatory impact</p> <p>3 in school desegregation cases. I don't know that</p> <p>4 I've ever testified about discrimination in</p> <p>5 disparate impact.</p> <p>6 Q Do you understand the distinction between</p> <p>7 a disparate impact and a disparate treatment claim?</p> <p>8 A Yes.</p> <p>9 Q What's your understanding of the</p> <p>10 difference?</p> <p>11 A Prior to the Texas ruling of about a year</p> <p>12 ago, the issue in showing disparate impact was that</p> <p>13 you were also concerned with intent. After the</p> <p>14 Texas ruling, as I understand it, it's essentially</p> <p>15 sufficient to show statistical differences to prove</p> <p>16 disparate impact.</p> <p>17 Q The Texas case, are you referring to The</p> <p>18 Inclusive Communities case?</p> <p>19 A Yes.</p> <p>20 Q Have you been involved previously with any</p> <p>21 study or effort to estimate the undocumented</p> <p>22 immigrant population for any particular area of the</p>

<p>21</p> <p>1 United States?</p> <p>2 A Yes.</p> <p>3 Q On how many occasions?</p> <p>4 A I wrote two books, "The California</p> <p>5 Cauldron" and "The American Dream," both of which</p> <p>6 have substantial sections on undocumented</p> <p>7 immigrants, the estimation of those populations, and</p> <p>8 discussions of their locations, outcomes, and a</p> <p>9 variety of demographic aspects.</p> <p>10 Q Let's start first with the book you</p> <p>11 mentioned. I think it was "The California</p> <p>12 Cauldron." Is that correct?</p> <p>13 A Yes.</p> <p>14 Q When was that book published?</p> <p>15 A In the 1990s.</p> <p>16 Q And what undocumented population did you</p> <p>17 estimate in that publication?</p> <p>18 A I used data on the undocumented population</p> <p>19 that had been published and estimated by others. I</p> <p>20 didn't provide estimates myself of the undocumented</p> <p>21 population.</p> <p>22 Q So you accepted the estimates that others</p>	<p>23</p> <p>1 the estimates. As a demographer, I don't know what</p> <p>2 more you would do except evaluate the methodology</p> <p>3 and look at the estimates and discuss the findings</p> <p>4 that you can draw from that.</p> <p>5 Q What methodology was utilized for those</p> <p>6 estimates that you relied upon in your "California</p> <p>7 Cauldron" book?</p> <p>8 A Well, as you probably know, the work on</p> <p>9 undocumented immigrants is an evolving issue and it</p> <p>10 began with people who looked at the I53 cards, I</p> <p>11 believe they were called, which were required of</p> <p>12 every resident alien, and they used a comparison of</p> <p>13 those with the actual census data to come up with</p> <p>14 estimates, which suggested back in the 1990s that</p> <p>15 there was somewhere between two and four million</p> <p>16 undocumented immigrants. That number varied over</p> <p>17 time as people attempted to refine the technology to</p> <p>18 get a better estimate of the undocumented</p> <p>19 population.</p> <p>20 Q What area of the United States were you</p> <p>21 attempting to estimate the undocumented population</p> <p>22 for in "The California Cauldron" book?</p>
<p>22</p> <p>1 had provided. Is that correct?</p> <p>2 A I used those estimates. I described them.</p> <p>3 I discussed them. I evaluated them. To that</p> <p>4 extent, I utilized them in my published book.</p> <p>5 Q What did you do to evaluate those</p> <p>6 estimates?</p> <p>7 A I did what all demographers do: I</p> <p>8 validated to the extent I could how those estimates</p> <p>9 had been prepared.</p> <p>10 Q So you looked at the methodology for how</p> <p>11 those estimates were derived?</p> <p>12 A For example, yes.</p> <p>13 Q Did you look at any other data or</p> <p>14 information to determine the validity of those</p> <p>15 estimates?</p> <p>16 A I don't know what you mean by other data.</p> <p>17 Q Other than looking at the methodology for</p> <p>18 these estimates, did you take anything else into</p> <p>19 account to determine whether the estimates were</p> <p>20 accurate?</p> <p>21 A Well, we've already discussed the fact</p> <p>22 that we reviewed the methodology and we looked at</p>	<p>24</p> <p>1 A I think we established I wasn't trying to</p> <p>2 estimate it. I was using estimates that had been</p> <p>3 prepared by demographers who were using their skills</p> <p>4 to provide us with the best estimate they could.</p> <p>5 And it was for California, to answer your specific</p> <p>6 question.</p> <p>7 Q The other book you mentioned was "The</p> <p>8 American Dream." When was that book published?</p> <p>9 A 2003, I believe.</p> <p>10 Q What was the subject of that book?</p> <p>11 A That was a study of immigrant progress in</p> <p>12 the United States over the 30-year period as</p> <p>13 immigration increased from a few hundred thousand to</p> <p>14 more than a million a year.</p> <p>15 Q In that book did you attempt to estimate</p> <p>16 the undocumented population for any particular area</p> <p>17 of the United States?</p> <p>18 A I don't recall. I haven't gone back and</p> <p>19 looked at that recently. It did deal with the</p> <p>20 undocumented population, but it was not so much a</p> <p>21 critical part of that book as it was "The California</p> <p>22 Cauldron."</p>

<p style="text-align: right;">25</p> <p>1 Q Let me ask you sort of the predicate 2 question: We've been using the phrase "undocumented 3 population." What does that phrase mean to you? 4 A Well, it's a general term that we use to 5 describe residents of the United States without 6 documentation. They could be people who have come 7 in entry without inspection, or they could be people 8 who have come in with inspection and stayed beyond 9 the time of their visas. So it's a general term to 10 describe people who do not have the appropriate 11 documentation for residents in the U.S. 12 Q So the undocumented population would refer 13 to those who were in the United States illegally? 14 A That -- that's been a term that's been 15 used, but there's been discussions about whether you 16 should use "illegal" rather than using the term 17 "undocumented." But you could by definition say 18 that if they're here without documentation, they are 19 not legal residents. 20 Q Other than the two books you have 21 mentioned, have you been involved in any other 22 studies, publications of any kind in which the</p>	<p style="text-align: right;">27</p> <p>1 that that we believe contains the true value if we 2 had actually counted the population. 3 Q How do you determine the margin of error 4 for a particular estimate? 5 A From a variety of statistical methods, 6 that effectively you are asking essentially 7 questions about what is the reliability of a number 8 that you've calculated, and you say, well, that 9 number could vary by a certain percentage either 10 side. Think of it as like a bell curve. 11 The true value is, say, the average age of 12 the population of the United States, 33.5. If we 13 counted everybody and estimated their age, that's 14 the true value. We take a sample, we get a number 15 that's somewhat near that. If we kept taking 16 samples, more will be near the true value than will 17 be further away from it. That range is what we use 18 to calculate the margin of error. 19 Q What factors impact the reliability of an 20 estimate? 21 A How well you do the sample, how much 22 variance there is in the population, the skills of</p>
<p style="text-align: right;">26</p> <p>1 subject was an attempt to estimate the undocumented 2 population in a particular geographical area? 3 A There may be other publications which have 4 certainly been involved with discussions of the 5 undocumented population. Your specific question 6 about whether I have estimated it for specific 7 areas, I don't believe that I have articles that 8 have done that. 9 Q Have you engaged in that type of analysis 10 as an expert witness on any occasion other than this 11 case? 12 A I believe it was part of the Koreatown 13 study. We were concerned with people who were 14 documented or not, but I don't think that that 15 became an essential part of that case. 16 Q In the reports in this case, Professor 17 Clark, there's a term that's used called "margin of 18 error." Can you define that term for me. 19 A When statisticians and demographers make 20 estimates using samples, they recognize that there 21 is some -- because it's not a count, there is some 22 error in the result, and we provide a range around</p>	<p style="text-align: right;">28</p> <p>1 the demographer doing the estimate. 2 Q Does the size of the sample impact the 3 reliability of the estimate that's derived from it? 4 A The size of the sample plays a role, yes. 5 Q What role does that play? 6 A Well, larger samples are usually likely to 7 be more accurate. 8 Q When you take into account these various 9 factors that could affect the reliability of the 10 estimate, is there a particular method by which you 11 then determine the margin of error? 12 A Well, the margin of error is calculated as 13 a -- as a -- using the statistical probability. You 14 ask what's the reliability of the estimate based on 15 a five percent variation, a ten percent variation, 16 and you produce that estimate as a measure of the 17 potential variation in the true value. 18 Q In determining your margin of error, is 19 that determined at all by the confidence level that 20 you utilize? 21 A The confidence level influences -- you can 22 have margins of error at various confidence levels.</p>

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<p>29</p> <p>1 Q What is the confidence level that you</p> <p>2 consider to be the standard in what you do?</p> <p>3 A Well, it's not what I do. Demographers</p> <p>4 and census people use various levels of -- various</p> <p>5 probability estimates ranging in the five -- .05 and</p> <p>6 .10, five and ten percent.</p> <p>7 Q Well, the Census Bureau uses a confidence</p> <p>8 level of 90 percent, correct?</p> <p>9 A Yes. That's the other way of saying it.</p> <p>10 Q As a demographer, is that an acceptable</p> <p>11 standard to use?</p> <p>12 A It's used -- of course it is. The census</p> <p>13 uses it. Demographers use it.</p> <p>14 Q In looking at a sample, in determining the</p> <p>15 margin of error, if you go from a larger sample, say</p> <p>16 a national survey, to a county survey, does the</p> <p>17 margin of error increase as you go from the larger</p> <p>18 to the smaller area?</p> <p>19 A It can, yes.</p> <p>20 Q Are there any instances where that would</p> <p>21 not happen?</p> <p>22 A I don't know.</p>	<p>31</p> <p>1 A I already said it depends on the sample</p> <p>2 size at both levels. You could have a large sample</p> <p>3 size at the local level and you could have a small</p> <p>4 sample at the national level.</p> <p>5 Q So how do you determine --</p> <p>6 A The sample size -- excuse me.</p> <p>7 Q Go ahead.</p> <p>8 A No.</p> <p>9 Q So how do you make that comparison?</p> <p>10 A I don't understand what comparison you</p> <p>11 want.</p> <p>12 Q So if the sample size at the national</p> <p>13 level is three million, let's assume, and the county</p> <p>14 size is 3,000 in a county with a population of a</p> <p>15 million, how do you as a demographer determine the</p> <p>16 margin of error in comparing those two statistics?</p> <p>17 A Well, you're not comparing -- first of</p> <p>18 all, it depends on what statistic you're trying to</p> <p>19 estimate. But in the case you provided, three</p> <p>20 million at the national, 3,000 at the county, the</p> <p>21 margin of error would probably be greater at the</p> <p>22 county level than at the national level.</p>
<p>30</p> <p>1 Q Well, would you agree as a general rule</p> <p>2 that if you go from, say, a national survey to a</p> <p>3 local county survey that the margin of error will</p> <p>4 increase?</p> <p>5 A It depends on your sampling methodology.</p> <p>6 You could sample with a greater number at the local</p> <p>7 level than at the national. If you're just doing</p> <p>8 the national sample and seeing what the estimate</p> <p>9 would be at the local level, there's going to be a</p> <p>10 greater margin of error at the local level than</p> <p>11 there is at the national level.</p> <p>12 Q So is it more looking at the sample size</p> <p>13 at the national level and comparing that, for</p> <p>14 instance, to the sample size at the county level?</p> <p>15 A I don't understand your question.</p> <p>16 Q Well, I'm trying to understand your</p> <p>17 explanation. If you have a margin of error at the</p> <p>18 national level that's looking at the same population</p> <p>19 segment, let's say, and you have a sample at the</p> <p>20 county level that's looking at that same population</p> <p>21 segment, is the margin of error going to be higher</p> <p>22 at the county level compared to the national?</p>	<p>32</p> <p>1 Q So what I'm trying to get at is in making</p> <p>2 those comparisons, what factors do you as a</p> <p>3 demographer look at to determine the difference in</p> <p>4 the margin of error in that situation?</p> <p>5 A I'm sorry. I just don't understand your</p> <p>6 question. The margin of error is the margin of</p> <p>7 error which you calculate at the national level and</p> <p>8 the local level. That's it.</p> <p>9 Q Would you agree that the Census Bureau,</p> <p>10 for example, when it goes from the national level</p> <p>11 down to smaller geographical areas, its margin of</p> <p>12 error increases?</p> <p>13 A Yes.</p> <p>14 Q So is that typical, that when you go from</p> <p>15 a larger to a smaller geographical area, the margin</p> <p>16 of error increases?</p> <p>17 A There are a number of assumptions in your</p> <p>18 statement. It would only increase if you hold the</p> <p>19 sample size constant.</p> <p>20 Q When you say hold the sample size</p> <p>21 constant, what do you mean?</p> <p>22 A Well, you have three million at the</p>

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<p style="text-align: right;">33</p> <p>1 national level, you have some smaller number at the</p> <p>2 local level, and we've agreed that the margin of</p> <p>3 error would be greater at the smaller area than at</p> <p>4 the national.</p> <p>5 Q In attempting to estimate the undocumented</p> <p>6 population as we've defined it, are there particular</p> <p>7 challenges to that type of estimate as opposed to</p> <p>8 estimating another segment of the population?</p> <p>9 A I believe that's true.</p> <p>10 Q What are the difficulties, if you will, in</p> <p>11 estimating the undocumented population?</p> <p>12 A Well, because they're undocumented, some</p> <p>13 of them prefer not to be measured in census</p> <p>14 estimations. So getting an accurate count is more</p> <p>15 difficult for a population that is less willing,</p> <p>16 less wanting to be measured.</p> <p>17 Q As a demographer, how do you deal with</p> <p>18 that?</p> <p>19 A Well, there's a huge literature and it's</p> <p>20 been discussed at length, and both Dr. Weinberg and</p> <p>21 I reference some of the important people, Fasel,</p> <p>22 Warren, Word, all these people, Peter Morrison, who</p>	<p style="text-align: right;">35</p> <p>1 population. Putting margins of error on this is</p> <p>2 difficult -- a difficult process. Why they actually</p> <p>3 didn't do it, they don't say in their report. I</p> <p>4 hasten to add that that material has just come out,</p> <p>5 and I understand, but this is hearsay, that they may</p> <p>6 attempt to provide margins of error.</p> <p>7 Q Would you expect the margin of error for</p> <p>8 the undocumented population to be higher at the</p> <p>9 state level as opposed to the national estimate from</p> <p>10 CMS?</p> <p>11 A Would I expect the margin of error to be</p> <p>12 higher?</p> <p>13 Q Yes, at the state level.</p> <p>14 A Depending on the state, possibly. I don't</p> <p>15 think it would necessarily be any higher in</p> <p>16 California, but it's possible.</p> <p>17 Q What factors would you consider in</p> <p>18 determining whether the margin of error at the state</p> <p>19 level is higher than the nine percent margin of</p> <p>20 error at the national level of CMS estimates?</p> <p>21 A I'm not sure I understand where you're</p> <p>22 going with your question, but it seems to me we've</p>
<p style="text-align: right;">34</p> <p>1 have worked on this project of how to estimate the</p> <p>2 undocumented population, and now the demographers at</p> <p>3 The Center for Migration Studies have done a very</p> <p>4 good job of coming up with pretty good estimates of</p> <p>5 the national and local undocumented populations.</p> <p>6 Q So The Center for Migration Studies has</p> <p>7 estimated the undocumented population at the</p> <p>8 national level for the United States, correct?</p> <p>9 A Yes.</p> <p>10 Q Is it also true that CMS, who is -- I'll</p> <p>11 refer to them as The Center for Migration Studies --</p> <p>12 has acknowledged a nine percent margin of error with</p> <p>13 respect to its estimate of the undocumented</p> <p>14 population at the national level?</p> <p>15 A That's correct.</p> <p>16 Q Has CMS estimated the margin of error for</p> <p>17 its estimates at smaller geographical areas such as</p> <p>18 a state?</p> <p>19 A They have not.</p> <p>20 Q Do you know why they have not done that?</p> <p>21 A I think the -- they say it's difficult</p> <p>22 enough to try and get estimates of the undocumented</p>	<p style="text-align: right;">36</p> <p>1 talked about how you make estimates already. I</p> <p>2 don't know what I can add.</p> <p>3 Q Well, you've testified that as you go from</p> <p>4 a larger to a smaller geographical area, the margin</p> <p>5 of error increases. My question for you is CMS, as</p> <p>6 you've testified, acknowledges a nine percent margin</p> <p>7 of error for its estimate at the national level of</p> <p>8 undocumented -- the undocumented population. Would</p> <p>9 you expect the margin of error for the undocumented</p> <p>10 population estimated by CMS to be higher at the</p> <p>11 state level?</p> <p>12 A I already answered that question. I said</p> <p>13 it might be, but as in the case of California, I do</p> <p>14 not think it would be.</p> <p>15 Q How about the state of Virginia?</p> <p>16 A Virginia has a significant undocumented</p> <p>17 population. It could well be higher, but we haven't</p> <p>18 done that estimate. We don't know.</p> <p>19 Q Does CMS -- to what -- what's the smallest</p> <p>20 geographical area that CMS provides an estimate of</p> <p>21 the undocumented population?</p> <p>22 A For sub-county units.</p>

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<p>37</p> <p>1 Q Is that what's been referred to in some of</p> <p>2 the reports -- and I'll use the acronym -- PUMA,</p> <p>3 P-U-M-A?</p> <p>4 A Yes, public use microdata area.</p> <p>5 Q So that's the smallest geographical area</p> <p>6 that CMS will provide an estimate or has provided an</p> <p>7 estimate for the undocumented population, correct?</p> <p>8 A That is the smallest area to which they</p> <p>9 have published estimates.</p> <p>10 Q Okay. Are there any other entities that</p> <p>11 have estimated the undocumented population at a</p> <p>12 geographical area smaller than a PUMA?</p> <p>13 A Not that I know of.</p> <p>14 Q Do you know why that is?</p> <p>15 A It's a very time consuming and tedious</p> <p>16 activity, and I don't think the other two major</p> <p>17 groups, The Pew Foundation and the -- I can't recall</p> <p>18 the name -- the Migration Studies Institute --</p> <p>19 Q Yeah.</p> <p>20 A -- have done that.</p> <p>21 Q In the expert report that you provided in</p> <p>22 this case, you adopted the margin of error that the</p>	<p>39</p> <p>1 interested in making point estimates, and that's</p> <p>2 what I was concerned with here. I was concerned</p> <p>3 with making a point estimate, the best estimate I</p> <p>4 could of the undocumented population in the census</p> <p>5 tract, which I did.</p> <p>6 And interestingly, Dr. Weinberg has a</p> <p>7 point estimate that's not that much different from</p> <p>8 the one I have. That's a point estimate around</p> <p>9 which there is a margin of error. The fact that we</p> <p>10 both got a point estimate that's close to one</p> <p>11 another gives me certain confidence that that's</p> <p>12 about where the proper number lies.</p> <p>13 We don't know the exact number, we don't</p> <p>14 know the true number, but there is a range of error</p> <p>15 around those, and I believe that the point estimate</p> <p>16 is the way of thinking about this around which there</p> <p>17 is a bell-shaped curve. As I point out in my</p> <p>18 report, I think that is the important finding, that</p> <p>19 we are trying to determine the point estimate.</p> <p>20 That's the focus, not the margin of error.</p> <p>21 Q But doesn't the margin of error tell you</p> <p>22 how reliable your point estimate is?</p>
<p>38</p> <p>1 American Community Survey attached to the estimate</p> <p>2 of the total number of Hispanics in the census tract</p> <p>3 at issue. Is that correct?</p> <p>4 A That's correct.</p> <p>5 Q Do you know how ACS determined that margin</p> <p>6 of error?</p> <p>7 A Certainly when I was reviewing the</p> <p>8 document, I could have given you a much more</p> <p>9 specific answer. They used the procedures the ACS</p> <p>10 uses for all of its margins of error, and they pass</p> <p>11 that down to the local unit, and that's their best</p> <p>12 estimate of a range for that small population in a</p> <p>13 census tract. In this case I think it was 26</p> <p>14 percent.</p> <p>15 Q All right. At what point does the margin</p> <p>16 of error cause you as a demographer to question the</p> <p>17 reliability of the estimate?</p> <p>18 A Well, I think we have to be clear that the</p> <p>19 issue and the importance is -- the point is not the</p> <p>20 margin of error. The margin of error gives us a</p> <p>21 guide as to what the range might be. But in the</p> <p>22 end, all statisticians and demographers are</p>	<p>40</p> <p>1 A Margin of error is useful in telling us</p> <p>2 how well we can rely on it, but if we focus only on</p> <p>3 the margin of error, we lose sight of the fact that</p> <p>4 we're trying to make a point estimate. There is a</p> <p>5 margin of error around it, but as I pointed out in</p> <p>6 the rebuttal report, the margin of error is not 101</p> <p>7 percent, which would not -- which would be</p> <p>8 nonsensical.</p> <p>9 So there is some margin of error. I</p> <p>10 believe I appropriately used, failing other</p> <p>11 information that was -- had good back-up, I reliably</p> <p>12 used the ACS report for all Hispanics to estimate</p> <p>13 the undocumented Hispanic population.</p> <p>14 Q So let me get back to my question then.</p> <p>15 When you have a point estimate and you assign it a</p> <p>16 margin of error, at what point does the margin of</p> <p>17 error get so high that the estimate is no longer</p> <p>18 reliable?</p> <p>19 A The estimate is -- has -- the estimate is</p> <p>20 the estimate. What we're saying is it is in some</p> <p>21 range. You can use other information when you're</p> <p>22 actually trying to determine such a difficult</p>

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<p style="text-align: right;">41</p> <p>1 situation as this, as well as the margin of error. 2 For example, we know that there are about 80 3 Hispanic residents in the mobile home park at issue 4 in this case. So the number of undocumented is 5 going to be some -- in some range there. 6 We know that in trying to make an 7 estimate, we can use other information such that if 8 we construct a range for the margin of error which 9 is greater -- which goes to zero, that doesn't make 10 sense. So we have to use both statistical sense and 11 common sense in trying to evaluate difficult point 12 estimates like the undocumented. 13 Q So is it your testimony that you can 14 disregard the margin of error in determining the 15 reliability of an estimate? 16 A I didn't ever say that. 17 Q Okay. Well, my question then is when does 18 the margin of error get to a point where as a 19 demographer you cannot rely on the estimate? 20 A The only way to answer that question would 21 be to have a specific situation, and I -- we don't 22 have a specific situation that I can give you to</p>	<p style="text-align: right;">43</p> <p>1 of error was 75 percent? 2 A As I said to you earlier, I don't want to 3 go into this kind of to-and-fro where you say is it 4 this, is it this, is it this, because what I said to 5 you was I used a reliable margin of error that was 6 provided by the ACS for all Hispanics within that 7 tract and applied it to my estimate of the 8 undocumented. I believe that's a reliable point 9 estimate. I believe that's a reasonable margin of 10 error. 11 Q I understand your testimony, but I'm 12 asking a different question. I'm asking you as a 13 demographer, when does the margin of error get to a 14 percentage where you can no longer deem the estimate 15 to be reliable? 16 A I don't have an answer to that question. 17 Q Why not? 18 A It's not a question I've ever spent the 19 time thinking about to be able to give you a 20 reasoned answer. 21 Q Why does the Census Bureau publish margins 22 of error with its statistics and estimates?</p>
<p style="text-align: right;">42</p> <p>1 answer your question. There is no general answer to 2 the question when is the margin of error unreliable. 3 That's the question you're asking. 4 Q So your testimony is you could have a 100 5 percent margin of error and still have a reliable 6 estimate. Is that correct? 7 A No, I didn't testify to that. 8 Q Okay. Well, what number below a 100 9 percent margin of error would you as a demographer 10 say the estimate is no longer reliable? 11 A I wouldn't use that language. And what I 12 did in my report was take the ACS estimate and use 13 that to create a range. I think that's reliable. I 14 don't have to make decisions about what might 15 happen. I actually used an ACS figure and applied 16 it to my point estimate to give a range of around -- 17 I don't recall exactly -- 230 to 320. 18 Q Let me ask it this way: If the ACS margin 19 of error was 50 percent rather than 26 percent, 20 would your estimate still be reliable? 21 A Yes. 22 Q Would it still be reliable if the margin</p>	<p style="text-align: right;">44</p> <p>1 A Because it wants us to reflect on the 2 value of the point estimate and to make sure that we 3 realize that there is variation in those point 4 estimates. But they also say, having sat on a 5 number of the census commissions, that the point 6 estimate is still their best estimate, otherwise 7 they wouldn't publish it. 8 Q So let me ask this again: Can you ignore 9 the margin of error in determining the reliability 10 of a point estimate? 11 A I never said that. 12 Q Well, since you have to take the margin of 13 error into account then in determining the 14 reliability of a point estimate, when does the 15 margin of error get to a point where you cannot deem 16 the estimate to be reliable? 17 MR. KIM: Objection, asked and answered. 18 A We've been over that several times. I've 19 given you my answer, that I've used the ACS margin 20 of error. The question you're asking is a 21 philosophical question, and as I said to you 22 earlier, I haven't reflected on whether there's an</p>

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<p>45</p> <p>1 answer to that question.</p> <p>2 BY MR. DINGMAN:</p> <p>3 Q What's the highest margin of error you've</p> <p>4 used in presenting an estimate?</p> <p>5 A I can't recall specific examples.</p> <p>6 Q With respect to the margin of error that</p> <p>7 you used in your report, the 26 percent was the</p> <p>8 margin of error for Hispanics in the census tract at</p> <p>9 issue, correct?</p> <p>10 A That's correct.</p> <p>11 Q Why didn't you adjust that margin of error</p> <p>12 up when you estimated the undocumented population?</p> <p>13 A I didn't understand your question.</p> <p>14 Q Why didn't you increase the margin of</p> <p>15 error when you attempted to estimate the</p> <p>16 undocumented population in your report?</p> <p>17 A I didn't adjust it up. I used 26 percent.</p> <p>18 Q Well, that's my question. You testified</p> <p>19 that it's more difficult to estimate the</p> <p>20 undocumented population, so why didn't you use a</p> <p>21 higher margin of error for that estimate?</p> <p>22 A I believe the ACS is the most reliable</p>	<p>47</p> <p>1 A Correct.</p> <p>2 Q So shouldn't the margin of error go up?</p> <p>3 A If you had some basis to change it, you</p> <p>4 could make that adjustment. That would increase the</p> <p>5 number.</p> <p>6 But I make two points in response to you:</p> <p>7 We have another statistician who has also provided a</p> <p>8 point estimate, without a range of error, I might</p> <p>9 add. So we don't know what the range of error of</p> <p>10 Dr. Weinberg's point is. But both point estimates</p> <p>11 are within a relatively narrow range. Whether the</p> <p>12 margin of error is actually 26 percent, we can only</p> <p>13 rely on the fact that that's our best information at</p> <p>14 this point.</p> <p>15 Q Well, you would agree, Professor Clark,</p> <p>16 that Mr. Weinberg believes that your estimate is</p> <p>17 completely unreliable because of the margin of</p> <p>18 error, correct?</p> <p>19 A He says that in his report.</p> <p>20 Q So the issue isn't so much the point</p> <p>21 estimate, but whether it's sufficiently reliable,</p> <p>22 correct?</p>
<p>46</p> <p>1 piece of information we have about Hispanics and</p> <p>2 that I used to apply to my undocumented estimate so</p> <p>3 that I could give you a range. In fact, I believe</p> <p>4 my point estimate is about correct.</p> <p>5 Q Well, the ACS 26 percent margin of error</p> <p>6 has nothing to do with the undocumented population,</p> <p>7 correct?</p> <p>8 A It does to the extent that undocuments</p> <p>9 are -- the undocumented are members of that Hispanic</p> <p>10 population.</p> <p>11 Q But the ACS doesn't differentiate, it</p> <p>12 simply has an estimate of the total Hispanic</p> <p>13 population, right?</p> <p>14 A That's correct.</p> <p>15 Q And that had a margin of error of 26</p> <p>16 percent, correct?</p> <p>17 A Correct.</p> <p>18 Q And you attempted to estimate a sub-group</p> <p>19 of undocumented Hispanics, correct?</p> <p>20 A Yes.</p> <p>21 Q Which is less certain, as you've already</p> <p>22 testified, correct?</p>	<p>48</p> <p>1 A No. He made a point estimate that is very</p> <p>2 similar to my point estimate. He failed to provide</p> <p>3 a range of error. He didn't go through a margin of</p> <p>4 error analysis. All he did was use some language,</p> <p>5 which I must admit I find difficult to understand,</p> <p>6 about 800 percent and then 101 percent and</p> <p>7 one-eighth, but he did not provide a margin of</p> <p>8 error. But he did provide a point estimate, both of</p> <p>9 which are well within my margin of error using the</p> <p>10 ACS data.</p> <p>11 Q But you would agree, wouldn't you,</p> <p>12 Professor Clark, that somebody can provide you a</p> <p>13 point estimate on anything, but you as a demographer</p> <p>14 have to determine whether it's reliable, right?</p> <p>15 A Well, I don't provide estimates on just</p> <p>16 anything. As a demographer faced with a specific</p> <p>17 question, I do my best estimate for that procedure.</p> <p>18 That's what I did in this case and provided a point</p> <p>19 estimate that about 300 Hispanics in that tract are</p> <p>20 undocumented.</p> <p>21 Q But you have to demonstrate the</p> <p>22 reliability of that estimate, right?</p>

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<p style="text-align: right;">49</p> <p>1 A I did. I provided a range of error, and 2 the fact that another statistician came in with a 3 value within that range of error provides me with a 4 great deal of confidence that I'm pretty right. 5 Q Except that his error was 809 percent and 6 yours was 26 percent, right? 7 A No, that's not correct. He did not 8 provide a range of error for his point estimate. He 9 did not provide a margin of error for his point 10 estimate, and the 800, 900 percent is not 11 sufficiently explained in the report for me to 12 understand. 13 Q Well, isn't the real issue between you and 14 Dr. Weinberg is that you think your 26 percent 15 margin of error makes your point estimate reliable 16 and he believes it's not reliable because his margin 17 of error is 809 percent? 18 A He doesn't provide a margin of error. He 19 provides some statistics about percentages. There 20 is no margin of error in Dr. Weinberg's report in 21 any form. He doesn't even calculate a margin of 22 error with his analysis. He provides no margin of</p>	<p style="text-align: right;">51</p> <p>1 Q Well, if you don't know, aren't you 2 speculating on the margin of error at that level? 3 A No. I chose to use a point estimate -- we 4 keep coming back to the same point -- and I used the 5 reliable ACS measure of the range of error for all 6 Hispanics given that we know there are a large 7 number of Hispanics in Virginia and in Fairfax 8 County, and so I have a certain amount of confidence 9 in my results. 10 Q But the ACS margin of error that you used 11 was not an estimate of the undocumented population, 12 correct? 13 A I think you stated that at least twice 14 now. 15 Q Okay. 16 A That's correct. 17 Q Then why is it a valid margin of error for 18 the undocumented population? 19 A Because the undocumented population are a 20 proportion of the total Hispanic population, and 21 because it is probably the best margin of error 22 we're going to reliably have, I used that around my</p>
<p style="text-align: right;">50</p> <p>1 error. 2 Q You've read his report? 3 A Yes. 4 Q Did you read the tables where he 5 calculated the margin of error? 6 A I did. 7 Q So how are you saying that he did not 8 estimate a margin of error? 9 A There's no margin of error around his 10 point estimate. That's what I'm saying. 11 Q Well, then what margin of error do you 12 believe he set forth in his report? 13 A I don't have his report in front of me, so 14 I can't recall it. 15 Q With the CMS data having a nine percent 16 margin of error at the national level, what margin 17 of error would an estimate of the undocumented 18 population be at the census tract level? 19 A That hasn't been estimated. 20 Q Wouldn't it be exponentially higher? 21 A We do not know. It has not been 22 estimated. You're speculating. Sorry.</p>	<p style="text-align: right;">52</p> <p>1 point estimate. And I remind you that Dr. Weinberg 2 has a point estimate very close to mine, so 3 therefore it suggests that the number is reliably in 4 that range. 5 Q Again, I know you've read Dr. Weinberg's 6 report. Doesn't he expressly say that the point 7 estimate is completely unreliable? 8 A He says that about my point estimate. 9 Q All right. So the disagreement isn't the 10 point estimate derived from your methodology, it's 11 whether it's sufficiently reliable, right? 12 A I would have to go back and look at his 13 report again, but I think we don't disagree about 14 the point estimate. 15 Q But there's a significant disagreement 16 about the reliability of the estimate, right? 17 A There is a disagreement about the 18 appropriate margin of error. 19 Q Isn't that questioning the reliability of 20 the estimate? 21 A Well, to the extent that the results are 22 very similar, as I keep saying, I think it shows</p>

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<p style="text-align: right;">53</p> <p>1 some reliability in the estimate, just the opposite</p> <p>2 of what Dr. Weinberg is saying.</p> <p>3 Q Professor Clark, when were you first</p> <p>4 contacted about this case?</p> <p>5 A Around November 20, the 22nd.</p> <p>6 Q Of this year?</p> <p>7 A Yes.</p> <p>8 Q Who contacted you at that time?</p> <p>9 A I believe it was Mr. Kim and one or two</p> <p>10 other associates or senior members of the Quinn</p> <p>11 firm. There was a conference call.</p> <p>12 Q Who was involved in that call besides Mr.</p> <p>13 Kim?</p> <p>14 A I'm sorry. I don't recall the names. I</p> <p>15 wrote them down, but I don't have them in front of</p> <p>16 me.</p> <p>17 Q Okay. When you were first retained in</p> <p>18 this case, were you provided any documents to</p> <p>19 review?</p> <p>20 A Eventually I was given the initial</p> <p>21 complaint and response, and I think the judge's</p> <p>22 ruling.</p>	<p style="text-align: right;">55</p> <p>1 whether or not residents in the Waples Mobile Home</p> <p>2 Park were being affected by this particular policy</p> <p>3 of having to show documentation of their residency</p> <p>4 and whether this -- whether there was a disparate</p> <p>5 impact on Hispanics, and they sent me their initial</p> <p>6 filing which was focused on the state of Virginia.</p> <p>7 Q And what did you do to then prepare your</p> <p>8 analysis and ultimate report in this case?</p> <p>9 A Initially I collected census data on</p> <p>10 populations in Virginia, Fairfax County, Fairfax</p> <p>11 City, and the census tract once I determined where</p> <p>12 the mobile home park was located.</p> <p>13 Q What did you do next?</p> <p>14 A I did the analysis on whether there was a</p> <p>15 disparate impact on Hispanics, in other words, were</p> <p>16 Hispanics likely to be disparate -- have a disparate</p> <p>17 impact on this policy.</p> <p>18 At that point I did not have data on the</p> <p>19 occupancy of the mobile home park itself, which to</p> <p>20 me was a central issue about whether you could</p> <p>21 measure a disparate impact, but I could see whether</p> <p>22 or not such a policy had disparate impact if it</p>
<p style="text-align: right;">54</p> <p>1 Q Professor Clark, I'd like to go back to --</p> <p>2 I asked you when you were first contacted in the</p> <p>3 case, and you testified November of 2016. Your</p> <p>4 report is actually dated in October. So does that</p> <p>5 help refresh your memory of when you may have first</p> <p>6 been contacted in the case?</p> <p>7 A Maybe it was October. The report was</p> <p>8 dated October 28?</p> <p>9 Q Yes, sir.</p> <p>10 A Maybe it was September 22. Let me see if</p> <p>11 I can -- I'm sorry, I just don't recall, but it was</p> <p>12 in the fall.</p> <p>13 Q Okay.</p> <p>14 A I could go back and look at my e-mail log,</p> <p>15 but I don't recall. Sorry.</p> <p>16 Q Okay. I just wanted to clarify that</p> <p>17 because I know that the report was October. So</p> <p>18 sometime in the fall of this year, you were</p> <p>19 contacted about this case, correct?</p> <p>20 A Correct. Probably late September.</p> <p>21 Q Okay. What were you asked to do?</p> <p>22 A I was asked to look at the issue of</p>	<p style="text-align: right;">56</p> <p>1 applied to Hispanics at the state, county, and local</p> <p>2 level.</p> <p>3 Q Did anyone assist you in preparing your</p> <p>4 report in this case?</p> <p>5 A No.</p> <p>6 Q Did anyone assist you in performing the</p> <p>7 research that you've discussed?</p> <p>8 A No.</p> <p>9 Q Have you been retained in any prior case</p> <p>10 or any other engagement by the law firm of Quinn</p> <p>11 Emanuel?</p> <p>12 A No.</p> <p>13 Q All right.</p> <p>14 MR. DINGMAN: I'm going to ask that the --</p> <p>15 and Karen should have this -- that your expert</p> <p>16 report be identified as Exhibit 1 to the deposition,</p> <p>17 and Karen can provide a copy of that to you.</p> <p>18 (Deposition Exhibit No. 1 was marked for</p> <p>19 identification and was retained by counsel.)</p> <p>20 BY MR. DINGMAN:</p> <p>21 Q Professor Clark, I'd like you to take a</p> <p>22 look at Exhibit 1, and can you confirm this is the</p>

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<p>57</p> <p>1 expert report that you prepared for this case?</p> <p>2 A It is.</p> <p>3 Q One of the terms in there in the report</p> <p>4 refers to "applied demographic analysis." Can you</p> <p>5 just describe for me what that is.</p> <p>6 A Where is the term you're using from?</p> <p>7 Q Look to the first page under "The</p> <p>8 Question: A question which routinely emerges in</p> <p>9 demographic analysis." Well, let me ask it this</p> <p>10 way: Are you familiar with the term "applied</p> <p>11 demographic analysis?"</p> <p>12 A Yes.</p> <p>13 Q And what does that term mean to you?</p> <p>14 A It's come to mean the approach that</p> <p>15 demographers take when they use their tools to look</p> <p>16 at specific local issues, or even national issues,</p> <p>17 when they're applying demographic tools to local</p> <p>18 problems.</p> <p>19 Q What demographic tools did you apply to</p> <p>20 this report?</p> <p>21 A Very simple statistical tools of counting,</p> <p>22 of creating tables, of calculating proportions, and</p>	<p>59</p> <p>1 that was part of the rule, they wouldn't have been</p> <p>2 able to be a resident. But I didn't investigate</p> <p>3 that specific issue.</p> <p>4 Q Well, what policy did you investigate to</p> <p>5 determine whether it had a disparate impact on</p> <p>6 Hispanic families at the mobile home park?</p> <p>7 A The question was if you are applying a</p> <p>8 policy to one group versus another, it can have a</p> <p>9 disparate impact if it's affecting more than -- more</p> <p>10 of one group than another, and it was essentially</p> <p>11 because many undocumented are Hispanic, it was</p> <p>12 having an impact, a disparate impact on Hispanics.</p> <p>13 Q But that's sort of my question. The issue</p> <p>14 in the policy that the plaintiffs assert claim to</p> <p>15 have some sort of disparate impact was the</p> <p>16 requirement to prove legal status in the United</p> <p>17 States, right?</p> <p>18 A That's the assertion in the plaintiffs'</p> <p>19 case, yes.</p> <p>20 Q If you look under paragraph -- section two</p> <p>21 that's entitled Findings and Opinions, you state in</p> <p>22 the last sentence, "Any policy focused specifically</p>
<p>58</p> <p>1 applying estimating techniques.</p> <p>2 Q If you'll take a look at page 1 of your</p> <p>3 report, in the first section called "The Question,"</p> <p>4 you state, "Does the policy requiring proof of</p> <p>5 citizenship in a mobile home park disproportionately</p> <p>6 impact Hispanics families?" Was it your</p> <p>7 understanding that the claim of disparate impact was</p> <p>8 the inability to show legal status in the United</p> <p>9 States?</p> <p>10 A My understanding was whether or not a</p> <p>11 policy that had the impact -- had the implication of</p> <p>12 impacting a particular ethnic group was a disparate</p> <p>13 impact. Initially, at least, and when I did this</p> <p>14 report, it was not focused on whether or not they</p> <p>15 showed documentation.</p> <p>16 Q Well, was it your belief that proof of</p> <p>17 citizenship was required for someone to apply to</p> <p>18 live at the mobile home park?</p> <p>19 A Well, my understanding is that because</p> <p>20 people were already living there, they couldn't have</p> <p>21 used that as an application rule because they</p> <p>22 wouldn't be there, because when they applied, if</p>	<p>60</p> <p>1 on the sub-area defined by Tract 4406 will have a</p> <p>2 disproportionate impact on the Hispanic population."</p> <p>3 What's the basis for that statement?</p> <p>4 A Which finding are you citing?</p> <p>5 Q It's 2a on page 1.</p> <p>6 A 2a?</p> <p>7 Q Yes, sir. It's the last sentence in 2a.</p> <p>8 A Well, if any policy focused specifically</p> <p>9 on a part of Tract 4406, it's not applied to the</p> <p>10 whole tract, and because they're mostly Hispanics in</p> <p>11 that area, it's going to have a disproportionate</p> <p>12 impact.</p> <p>13 Q Well, wouldn't you have to know what the</p> <p>14 policy is before you make that statement?</p> <p>15 A No. Any policy that was focused on that</p> <p>16 sub-area that had an impact on the Hispanic</p> <p>17 population specifically would be disparate.</p> <p>18 Q So any application, policy, or process,</p> <p>19 regardless of what it says, would have a disparate</p> <p>20 impact on the Hispanic population. Is that what</p> <p>21 you're saying?</p> <p>22 A The policy is focused -- the policy that</p>

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<p style="text-align: right;">61</p> <p>1 we're talking about, which is the policy about</p> <p>2 requiring proof of citizenship which is listed in</p> <p>3 the first paragraph, would have an impact on</p> <p>4 Hispanics disproportionately.</p> <p>5 Q But here you're saying any policy would</p> <p>6 have a disparate impact, right?</p> <p>7 A I think that statement refers to the</p> <p>8 question that's posed above. But in fact the tract</p> <p>9 has a very high proportion of Hispanics compared to</p> <p>10 non-Hispanics, and any policy that was -- had the</p> <p>11 effect of targeting Hispanics, any policy would be</p> <p>12 disproportionate.</p> <p>13 Q So your statement any policy focused in</p> <p>14 this Tract 4406 would disproportionately impact</p> <p>15 Hispanics is not correct. It would have to be</p> <p>16 something that would target them. Is that your</p> <p>17 testimony?</p> <p>18 A It would have to be related to being</p> <p>19 Hispanic because that's the disparate impact.</p> <p>20 Q Well, if someone can't comply with the</p> <p>21 policy because they're in the United States</p> <p>22 illegally, does that have anything to do with them</p>	<p style="text-align: right;">63</p> <p>1 If you apply a policy that has an impact on one</p> <p>2 group but doesn't on another, that's the core of the</p> <p>3 disparate impact. So the fact that most</p> <p>4 undocumented immigrants are Hispanic means that it's</p> <p>5 a disparate impact if you apply a -- that particular</p> <p>6 policy.</p> <p>7 Q So your testimony is the disparate impact</p> <p>8 is due to the fact that there's a larger group of</p> <p>9 Hispanics in the undocumented population than some</p> <p>10 other race or ethnic group?</p> <p>11 A I believe the report says that, yes. It</p> <p>12 compares them with Asians and with others.</p> <p>13 Q I'd like you to now take a look, Professor</p> <p>14 Clark, at section 2d. We're still on page 1. And</p> <p>15 at the last line on that page, the sentence starts</p> <p>16 "Using the best available estimates," carrying over</p> <p>17 to page 2, "somewhat greater than 30 percent of the</p> <p>18 Hispanic population is likely to be undocumented."</p> <p>19 What were the best available estimates that you</p> <p>20 refer to there?</p> <p>21 A Well, that's discussed further in the</p> <p>22 report. Those are the estimates of The Center for</p>
<p style="text-align: right;">62</p> <p>1 being Hispanic?</p> <p>2 A You can be in the United States without</p> <p>3 documents whether or not you're Hispanic.</p> <p>4 Q Right. So whether someone is here</p> <p>5 illegally or not has nothing to do with whether</p> <p>6 they're Hispanic or not, right?</p> <p>7 A It so happens that a very large proportion</p> <p>8 of the undocumented are Hispanic.</p> <p>9 Q Whether that's true or not, my question is</p> <p>10 whether you're in the United States legally or not</p> <p>11 has nothing to do with whether you're Hispanic or</p> <p>12 some other race, correct?</p> <p>13 A You can be of different races and be in</p> <p>14 the U.S. without documentation, correct.</p> <p>15 Q So a policy that asks for determination of</p> <p>16 legal status isn't directed or targeting Hispanics,</p> <p>17 right?</p> <p>18 A Unfortunately, because many Hispanics are</p> <p>19 in fact undocumented, it has the impact of being a</p> <p>20 disparate outcome because there are many -- there</p> <p>21 are very few whites that are undocumented. There</p> <p>22 are some, of course. So it's a disparate impact.</p>	<p style="text-align: right;">64</p> <p>1 Migration Studies, but confirmed by the studies from</p> <p>2 the Pew Research Center and from the Migration</p> <p>3 Studies Institute.</p> <p>4 Q But the CMS doesn't have any estimate of</p> <p>5 the undocumented population at the tract level,</p> <p>6 correct?</p> <p>7 A That's correct.</p> <p>8 Q So then you did not rely upon CMS data for</p> <p>9 your ultimate conclusion in this case, right?</p> <p>10 A No, that's not correct. I used the CMS</p> <p>11 data from the PUMA to estimate what the undocumented</p> <p>12 population is in the tract, that tract as part of</p> <p>13 the PUMA.</p> <p>14 Q What's the population size in the PUMA</p> <p>15 that you relied upon?</p> <p>16 A I don't have it in front of me, but it's a</p> <p>17 large number.</p> <p>18 Q Well over 100,000, correct?</p> <p>19 A I believe so.</p> <p>20 Q And the census Tract 4406, that population</p> <p>21 is less than 4,000, correct?</p> <p>22 A Yes.</p>

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<p style="text-align: right;">65</p> <p>1 Q And you made no adjustment between the CMS</p> <p>2 estimate at the PUMA level and the tract level in</p> <p>3 your report, correct?</p> <p>4 A Yes. I took the data from the PUMA level</p> <p>5 and used that to make an estimate at the tract</p> <p>6 level. I used the proportions at the PUMA level and</p> <p>7 applied them to the tract level.</p> <p>8 Q But as we discussed before, as you go from</p> <p>9 a larger -- in this instance more than 100,000 --</p> <p>10 population in the PUMA to less than 4,000 in the</p> <p>11 tract, shouldn't the margin of error or should there</p> <p>12 be some adjustment because you're going from a</p> <p>13 larger to a smaller area?</p> <p>14 A We went around that at some length. I</p> <p>15 gave you a range of the estimate for the</p> <p>16 undocumented population at the tract level based on</p> <p>17 the material I used from the PUMA, and what is</p> <p>18 notable is that the numbers pan out in the way that</p> <p>19 the Fairfax County and the tract values are about</p> <p>20 the same. And so if we know that we can have a fair</p> <p>21 amount of reliability from the Fairfax County data</p> <p>22 and we're getting similar kinds of results at the</p>	<p style="text-align: right;">67</p> <p>1 A I looked at the census tracts that made up</p> <p>2 the PUMA. There are many of them like Tract 4406.</p> <p>3 Q So is it your testimony that Tract 4406 is</p> <p>4 similar in its demographic make-up as other census</p> <p>5 tracts in the PUMA?</p> <p>6 A I did not do that analysis.</p> <p>7 Q Continuing on page 2, I'd like you to</p> <p>8 focus now on subparagraph F. The last sentence</p> <p>9 states, "As a disproportionate number of Hispanics</p> <p>10 are not citizens, a disproportionate number of</p> <p>11 residents will be impacted by the park's leaseholder</p> <p>12 policy." When you make this statement, "a</p> <p>13 disproportionate number of Hispanics are not</p> <p>14 citizens," who are you comparing that group to?</p> <p>15 A Disproportionate to other groups.</p> <p>16 Q Which other groups?</p> <p>17 A Well, after -- I was just using</p> <p>18 non-Hispanics as the other group in that statement,</p> <p>19 but in the rebuttal report when Dr. Weinberg raised</p> <p>20 the issue of not estimating it for Asians, I redid</p> <p>21 the analysis so that we looked at Asians and other</p> <p>22 populations, and the disproportionate impact</p>
<p style="text-align: right;">66</p> <p>1 tract level, we feel reasonably confident of those</p> <p>2 results.</p> <p>3 Q What was your basis for assuming that the</p> <p>4 CMS estimate at the PUMA level would be the same for</p> <p>5 the census tract level?</p> <p>6 A The census tract is part of the PUMA. The</p> <p>7 counterfactual would be that the tract is very</p> <p>8 different from the rest of the PUMA, and there's no</p> <p>9 evidence that it is. It's like the PUMA as a whole.</p> <p>10 Therefore, we apply the same proportion at the PUMA</p> <p>11 level down to the tract level. That's a standard</p> <p>12 procedure in demography, that you use a proportion</p> <p>13 at the higher level and a proportion down at the</p> <p>14 lower levels.</p> <p>15 Q Well, isn't it true that the PUMA level</p> <p>16 data could be dispersed throughout various census</p> <p>17 tracts that are encompassed in the PUMA?</p> <p>18 A It is true that there's variation across</p> <p>19 the PUMA, but there's no evidence that the PUMA is</p> <p>20 so variable that it would make the estimating</p> <p>21 procedure improper.</p> <p>22 Q How did you determine that in this case?</p>	<p style="text-align: right;">68</p> <p>1 analysis is still true, but it's a slightly lower --</p> <p>2 it's in fact considerably lower for not-Asians,</p> <p>3 non-Hispanics.</p> <p>4 Q So in this statement, "a disproportionate</p> <p>5 number of Hispanics are not citizens," you're</p> <p>6 comparing Hispanics -- I mean, who are you comparing</p> <p>7 Hispanics to to make that statement?</p> <p>8 A Non-Hispanics.</p> <p>9 Q Who are also non-citizens?</p> <p>10 A If you look at non-Hispanics who are not</p> <p>11 citizens, Hispanics are more likely to have been</p> <p>12 non-citizens than are non-Hispanics.</p> <p>13 Q Moving on to the next section, which is</p> <p>14 section three entitled Data and Resources, in the</p> <p>15 first photograph, the second sentence you state, "I</p> <p>16 have carried out specific demographic studies of</p> <p>17 Fairfax County and the tracts within the county."</p> <p>18 What specific studies are you referring to there?</p> <p>19 A The studies in the report.</p> <p>20 Q So whatever studies you did of Fairfax</p> <p>21 County, they're in your report that's Exhibit 1. Is</p> <p>22 that correct?</p>

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<p style="text-align: right;">69</p> <p>1 A And whatever is in the response to Dr. 2 Weinberg, yes. 3 MR. DINGMAN: Why don't we take a short 4 break and let me reorganize. I think we can finish 5 up hopefully in the next 20, 30 minutes. 6 THE WITNESS: Okay. 7 MR. KIM: Sounds good. 8 (A brief recess was had from 5:34 p.m. to 9 5:42 p.m.) 10 MR. DINGMAN: Are we set to resume? 11 THE WITNESS: Yes. 12 MR. DINGMAN: Okay. 13 BY MR. DINGMAN: 14 Q Professor Clark, I'd like you to turn to 15 page 5 of your report. In the last paragraph before 16 the section with the heading Geography, in the first 17 sentence you state, "In sum, comparing the 18 undocumented population in Fairfax County and Census 19 Tract 4406 to other groups at the county and the 20 census tract level reveals a disparate impact at 21 both levels." What are the other groups at the 22 county that you refer to in that statement?</p>	<p style="text-align: right;">71</p> <p>1 did not take into account the undocumented Asian 2 population, correct? 3 A That's correct. 4 Q Why not? 5 A As I said in my rebuttal report, the Asian 6 undocumented population as I understood it were not 7 part of the -- were not at issue in this litigation, 8 and I did not do the calculations for them. 9 Q Well, how could you ignore them when you 10 make your statement that Latinos are nearly seven 11 times more likely to be undocumented than other 12 groups? 13 A Well, the statement is correct, but the 14 other groups, it turns out, did have undocumented 15 populations, and that number needed to be 16 reevaluated when it was pointed out to me that there 17 was a significant Asian undocumented population, 18 which I did in the second report. 19 Q Were you aware of that undocumented Asian 20 population when you wrote your initial report? 21 A I was not aware of the size of the 22 undocumented Asian population. I knew there was an</p>
<p style="text-align: right;">70</p> <p>1 A Non-Hispanic populations. 2 Q And why do you say there's a disparate 3 impact at both levels? 4 A At both county and census tract levels. 5 Q So the other groups are just 6 non-Hispanics, or are they the non-Hispanic 7 undocumented population that you're referring to 8 here? 9 A Non-Hispanic populations. 10 Q So that statement has nothing to do with 11 whether they're documented or not? 12 A No. I misspoke. That's drawn from the 13 table before where in fact I produce an undocumented 14 ratio for the county in the tract of 30.7 and 31.4. 15 Q So I'm still trying to understand the 16 statement here. You said you compared the 17 undocumented population in Fairfax County to other 18 groups at the county. So who were the other groups 19 at the county? The documented population? 20 A No, the undocumented non-Hispanic 21 population. 22 Q Okay. And when you did this report, you</p>	<p style="text-align: right;">72</p> <p>1 Asian undocumented population. I had not focused on 2 that because I was focusing on the Hispanic issue, 3 and I had recently worked on the Hispanic 4 composition of the Waples Mobile Home Park, and the 5 Asian composition of the home -- mobile home park 6 was very small. 7 Q But you agree to do this comparison, you 8 needed to take into account the size of the 9 undocumented Asian population in the census tract, 10 correct? 11 A That's what I did in the second report, 12 yes. 13 MR. DINGMAN: Let's mark as Exhibit 2 the 14 expert reply report for Professor Clark. 15 (Deposition Exhibit No. 2 was marked for 16 identification and was retained by counsel.) 17 BY MR. DINGMAN: 18 Q Professor Clark, if you could look at 19 Exhibit 2 and confirm that this is your reply report 20 in this case. 21 A It is. 22 Q Okay. As part of your report, you</p>

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<p style="text-align: right;">73</p> <p>1 reviewed the expert report provided by Daniel 2 Weinberg, correct? 3 A Yes. 4 Q Prior to this case, did you know Mr. 5 Weinberg? 6 A Yes. 7 Q In what capacity? 8 A A long time ago Dr. Weinberg submitted a 9 chapter to a book that I edited, and over the years 10 I had occasional exchanges with him. I gave a 11 lecture at the Census Bureau and I met him there. 12 I've seen him at and talked to him at national 13 population meetings. 14 Q What's your opinion of Dr. Weinberg? 15 A He's a very competent demographer and 16 statistician. 17 Q In reviewing his report, did you have any 18 issue with the methodology that he used to come up 19 with the MOE that he determined? 20 A As I explained to you earlier, I found it 21 difficult to understand his 101 percent MOE. He 22 made numerous assumptions that I could not find any</p>	<p style="text-align: right;">75</p> <p>1 undocumented Hispanics. 2 Q If you would look at page 1 of your reply 3 report, under the heading Point Estimates and the 4 Margin of Error, in the second paragraph you state 5 that Dr. Weinberg asserts that the margin of error 6 should be 101 percent, correct? 7 A I say that, yes. 8 Q But there's nothing in your reply report 9 that challenges how he came to that conclusion, 10 correct? 11 A I explained to you earlier that I could 12 not understand how he came to that conclusion. 13 Q Well, do you even state in your reply 14 report that his conclusion is wrong? 15 A I can't say whether it is right or wrong 16 because I can't interpret it. 17 Q Why can you not interpret it? 18 A The presentation is -- does not have 19 clarity. 20 Q And what do you contend to be the lack of 21 clarity in the presentation of Dr. Weinberg's 22 report?</p>
<p style="text-align: right;">74</p> <p>1 basis for, and so I found that I couldn't agree with 2 that. 3 Q What were the assumptions that you believe 4 he made that you could not account for? 5 A They're in his report, and I can't recall 6 them specifically, but he did, as he says, make a 7 number of assumptions to come up with 101 percent 8 error. There's a paragraph that begins "I make the 9 following assumptions." I cannot recall them for 10 you specifically now. 11 Q Okay. If you'll take a look at your 12 expert reply report, did you identify in there the 13 assumptions that you believe Dr. Weinberg made that 14 were not supportable? 15 A I don't believe I went through them. I 16 went through the report and pointed out, as we've 17 already discussed, that he got a point estimate 18 similar to mine. He didn't calculate a range -- a 19 margin of error using 101 percent which would have 20 produced a zero to 602 range, and I suggested that 21 that analysis obscures the reasonableness of a 22 result, which is a point estimate of about 300</p>	<p style="text-align: right;">76</p> <p>1 A I've said several times I don't understand 2 what his assumptions were or how he went from 800 3 percent and one-eighth of that to 101 percent. Why 4 one-eighth? There was no discussion of that. So I 5 could not understand what he did. 6 Q So do you then have no opinion as to 7 whether his calculations are correct or not? 8 A I believe his use of 101 percent does not 9 come up to the standard of a reasonable result. 10 Clearly there is no point estimate of zero in the 11 census tract, so the range he's proposing is 12 nonsensical as a margin of error. 13 Q Well, is it that the margin of error 14 demonstrates that the estimate is unreliable? 15 A I believe that's an incorrect statement. 16 Q Why do you believe that's an incorrect 17 statement? 18 A Because I provided an estimate using the 19 ACS margin of error, which I think is a reasonable 20 interpretation applied to the Hispanic -- from the 21 Hispanic population applied to produce an 22 undocumented population.</p>


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<p>77</p> <p>1 Q In his calculation, Dr. Weinberg took into</p> <p>2 account the CMS margin of error at the national</p> <p>3 level of nine percent, correct?</p> <p>4 A And then he multiplied it up.</p> <p>5 Q Right. But he took into account the nine</p> <p>6 percent margin of error that CMS admits to with</p> <p>7 respect to its national estimates, correct?</p> <p>8 A Yes.</p> <p>9 Q You ignored that, correct?</p> <p>10 A I didn't ignore it. I said that this is</p> <p>11 the best estimate we have. There is no margin of</p> <p>12 error provided by CMS. He made a number of</p> <p>13 assumptions about that for which I can find no</p> <p>14 basis.</p> <p>15 Q Well, isn't his assumption pretty</p> <p>16 straightforward? He started at a national margin of</p> <p>17 error and took that down to a census tract level?</p> <p>18 A Not if you just multiplied up by some</p> <p>19 number, which has no basis that I can find.</p> <p>20 Q So you don't recall that his basis was</p> <p>21 looking at the number of foreign-born nationals from</p> <p>22 the census data?</p>	<p>79</p> <p>1 lie. We've already established the point estimate</p> <p>2 of undocumented Hispanics in the census tract is not</p> <p>3 zero, but that's what Dr. Weinberg is claiming.</p> <p>4 Q What Dr. --</p> <p>5 A So that makes his result nonsensical.</p> <p>6 Q Isn't he demonstrating that the estimate</p> <p>7 has no reliability with his margin of error?</p> <p>8 A No, no. He's demonstrating that you could</p> <p>9 get a point estimate of zero under his discussion.</p> <p>10 That's not possible.</p> <p>11 Q Let me ask you this question.</p> <p>12 A The margin of error --</p> <p>13 Q Go ahead.</p> <p>14 A The margin of error includes all point</p> <p>15 estimates.</p> <p>16 Q As a demographer, can you accept an</p> <p>17 estimate as reliable without knowing the margin of</p> <p>18 error associated with the estimate?</p> <p>19 A You can accept the point estimate. There</p> <p>20 is a margin of error around it. You may not know</p> <p>21 exactly what the margin of error is. You can still</p> <p>22 accept the point estimate. We accept them all the</p>
<p>78</p> <p>1 A He uses that, but that's -- but there's no</p> <p>2 justification for it. And we're getting away from</p> <p>3 the point. You're focusing on margins of error, and</p> <p>4 I keep needing to remind you that we do have a point</p> <p>5 estimate here. That's the issue. There is an issue</p> <p>6 of what the margin of error should be, but the point</p> <p>7 estimate, which both Dr. Weinberg and I got, is a</p> <p>8 good estimate for the number of undocumented in the</p> <p>9 census tract. And that I think is the end of the</p> <p>10 discussion, really, because we've got a point</p> <p>11 estimate.</p> <p>12 Perhaps the margin of error should be</p> <p>13 larger, but the margin of error only gives us a</p> <p>14 sense of where the point estimate lies. Think of it</p> <p>15 again, as I said, as a bell curve. Multiple samples</p> <p>16 will produce most of the results near the point</p> <p>17 estimate.</p> <p>18 Q But in order to determine whether a point</p> <p>19 estimate is reliable, you have to consider the</p> <p>20 margin of error, correct?</p> <p>21 A You can consider the margin of error. It</p> <p>22 gives you a range in which the point estimate could</p>	<p>80</p> <p>1 time. Demographers accept estimates of income, of</p> <p>2 the proportion of women with levels of fertility.</p> <p>3 We accept point estimates all the time, both</p> <p>4 professionally and in the lay public. We don't</p> <p>5 always have point -- we don't -- in fact, we often</p> <p>6 do not have margins of error, but we accept them.</p> <p>7 Q Why does the Census Bureau attach a margin</p> <p>8 of error to all of its estimates if it's unnecessary</p> <p>9 to determine the reliability of the estimate?</p> <p>10 A I didn't say that. The Census Bureau in</p> <p>11 its great care with lots of mathematical</p> <p>12 statisticians is concerned to give a range around</p> <p>13 which their point estimates lie. They want people</p> <p>14 to be aware that the estimate is somewhere in this</p> <p>15 range.</p> <p>16 Q Isn't it true the Census Bureau also wants</p> <p>17 individuals to be aware that the estimate may not be</p> <p>18 reliable?</p> <p>19 A I'm not sure that's a correct statement</p> <p>20 about the Census Bureau, but we have to see what</p> <p>21 their documentation says on that.</p> <p>22 Q Based on your experience, do you</p>

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<p style="text-align: right;">81</p> <p>1 understand that that's the reason they provide a</p> <p>2 margin of error, to allow others to assess the</p> <p>3 reliability of their estimates?</p> <p>4 A That's one of the reasons they do it, and</p> <p>5 I've used what I believe is a reliable piece of</p> <p>6 their margins of error, that is, the margin of error</p> <p>7 for the census tract, which is quite large, 26</p> <p>8 percent, for my margin of error for the undocumented</p> <p>9 population. If we're talking only about the</p> <p>10 Hispanic population, that margin of error is in ACS.</p> <p>11 The only question is whether it applies to make an</p> <p>12 estimate of the undocumented population. I believe</p> <p>13 it does give us the best estimate.</p> <p>14 Q But in coming to your conclusions, you</p> <p>15 relied upon the CMS data at the PUMA level, correct?</p> <p>16 A To estimate the number of undocumented in</p> <p>17 that tract, I deduced it from the PUMA.</p> <p>18 But recall again that the other data at</p> <p>19 the county level is confirmatory of my result at the</p> <p>20 local level. The fact that I'm getting something</p> <p>21 similar gives me a great deal of confidence in that</p> <p>22 value. If the value of the census tract level was</p>	<p style="text-align: right;">83</p> <p>1 the number of claimed undocumented Hispanics in a</p> <p>2 particular area?</p> <p>3 A We can because they have taken the data at</p> <p>4 these various levels and passed it down to smaller</p> <p>5 levels. But when we look back at it at the county</p> <p>6 level, we're getting very -- we're getting much more</p> <p>7 reliable estimates because it's at a larger level.</p> <p>8 And again and again you seem to be</p> <p>9 unwilling to accept the fact that both experts found</p> <p>10 a point estimate around 280 to 300. That point</p> <p>11 estimate is a reasonable estimate of the</p> <p>12 undocumented Hispanic population. We know that</p> <p>13 there is an undocumented Hispanic population in the</p> <p>14 county, in the PUMA, and in the tract.</p> <p>15 This discussion between two experts is</p> <p>16 about the size of that population, not about whether</p> <p>17 there is or isn't. There is. The question is</p> <p>18 what's its size. I believe my point estimate and</p> <p>19 using the ACS range gives us reliable results.</p> <p>20 Q And Dr. Weinberg believes that your</p> <p>21 results are inherently unreliable, right?</p> <p>22 A Well, he's -- he provides a point estimate</p>
<p style="text-align: right;">82</p> <p>1 wildly different from the county level, I would be</p> <p>2 concerned about my point estimate, but I'm not.</p> <p>3 Q In relying upon the PUMA CMS estimate, you</p> <p>4 do not know what the margin of error is for that</p> <p>5 estimate, correct?</p> <p>6 A I think that question has been asked at</p> <p>7 least twice before, and I've answered. We don't</p> <p>8 know the margin of error for the CMS data. CMS did</p> <p>9 not provide margins of error at the PUMA level.</p> <p>10 Q How can you as a demographer determine</p> <p>11 whether their estimate is reliable or not?</p> <p>12 A They have gone through a complicated</p> <p>13 process of taking the national data, positing it out</p> <p>14 to state and to local areas. This is, as mine, the</p> <p>15 best estimate of the number of undocumented. That</p> <p>16 is a large team of demographers and statisticians</p> <p>17 produced this data. It is publicly available now</p> <p>18 online. I believe it is as reliable data as we can</p> <p>19 get about the undocumented population.</p> <p>20 Q Whether it's the most reliable or not, how</p> <p>21 can you determine whether it's sufficiently reliable</p> <p>22 to establish, for instance, in this case as a fact</p>	<p style="text-align: right;">84</p> <p>1 with no range, so I have no way of judging whether</p> <p>2 he finds my result unreliable apart from his</p> <p>3 discussion of the CMS bringing up to 900 percent,</p> <p>4 dividing it by one-eighth. I asked myself why is he</p> <p>5 dividing it by one-eighth and then bringing it down</p> <p>6 the 101 percent. But when I apply 101 percent to my</p> <p>7 data, as he says that's what the margin of error</p> <p>8 should be, I get nonsensical results.</p> <p>9 Q Professor Clark, are you being paid for</p> <p>10 your expert testimony in this case?</p> <p>11 A I am.</p> <p>12 Q And what is the rate that you're charging</p> <p>13 for your expert work in this case?</p> <p>14 A \$300 an hour.</p> <p>15 Q How much have you charged to date for your</p> <p>16 expert work in the case?</p> <p>17 A About \$7,000.</p> <p>18 Q Who has paid your fee?</p> <p>19 A No one has paid it as yet.</p> <p>20 Q Do you expect to be paid?</p> <p>21 A I expect to be paid.</p> <p>22 MR. DINGMAN: That's all the questions I</p>

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<p>85</p> <p>1 have. Thank you for your time. 2 THE WITNESS: Thank you. Thank you, sir. 3 MR. KIM: We don't have any questions. 4 We'll review the transcript. 5 MR. DINGMAN: All right. Thank you. 6 (Off the record at 6:04 p.m.) 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22</p>	<p>87</p> <p>1 CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC 2 I, Kelly Carnegie, Certified Shorthand 3 Reporter, Registered Professional Reporter, the 4 officer before whom the foregoing proceedings were 5 taken, do hereby certify that the foregoing 6 transcript is a true and correct record of the 7 proceedings; that said proceedings were taken by me 8 stenographically and thereafter reduced to 9 typewriting under my direction; that reading and 10 signing was requested; and that I am neither counsel 11 for, related to, nor employed by any of the parties 12 to this case and have no interest, financial or 13 otherwise, in its outcome. 14 IN WITNESS WHEREOF, I have hereunto set my 15 hand and affixed my notarial seal this 27th day of 16 December, 2016. 17 My commission expires: July 31, 2018 18 19  <u>Kelly Carnegie</u> 20 NOTARY PUBLIC IN AND FOR THE 21 COMMONWEALTH OF VIRGINIA 22 Notary Registration Number: 7060756</p>
<p>86</p> <p>1 ACKNOWLEDGEMENT OF DEPONENT 2 I, WILLIAM A.V. CLARK, Ph.D., do 3 hereby acknowledge that I have read and examined the 4 foregoing testimony, and the same is a true, correct 5 and complete transcription of the testimony given by 6 me and any corrections appear on the attached Errata 7 sheet signed by me. 8 9 10 11 _____ 12 (DATE) (SIGNATURE) 13 14 15 16 17 18 19 20 21 22</p>	

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